

## ENGINE FAMILY INFORMATION FILE

Sequence	Data Name	Type	Length	Range or Domain	Description	Reference*
1	QTR	C	3	100 = Jan-Mar 2000 200 = Apr-Jun 2000 300 = Jul-Sep 2000 400 = Oct-Dec 2000	First Digit = Quarter number Second and Third Digits = Last two digits of the calendar year	(c)(4)(E)(vii)
2	EO	C	11	Example: U-U-XX-XXX	Executive Order number	(c)(4)(E)(vii)
3	MFR	C	4	Example: WXYZ Four letter code name for manufacturer	4 digit manufacturer name code as specified in Table 1	(b)(5)(A), (c)(4)(E)
4	ENGFAM	C	12	Example: YXYZS.072ABC	12-digit engine family name used for certification	(b)(5)(B)(iv), (c)(4)(E)(v)
5	MODEL YR	N	4	Example: 2000, 2001	Model Year of engine family	(c)(4)(E)(v), (c)(4)(E)(vii)
6	MDLPWR	N	2.2	Range: 0 to 24.99	Maximum MODAL power from certification	(c)(4)(E)(v)
7	ENGTYPE	C	1	S= Spark ignition C= Compression ignition	Engine type	(b)(5)(B)(iv), (c)(4)(E)(v)
8	SAMPLOPT	C	3	CSM = cum sum method 1PT=1% sample OSP= Other sample plan	Sample option method: cum sum, 1% QA or other sample plan	(c)(4)(E)(iv)
9	ENGCLASS	C	1	A : 0 to 65cc Inclusive B : >65cc to <225cc C : >=225cc	Spark-ignition engine class/displacement as designated in the standards table	(b)(5)(B)(iv), (c)(4)(E)(v)
10	HPCLASS	N	1	1: <11HP 2: >=11 to <25HP	Compression-ignition horsepower class as designated in the standards table	(b)(5)(B)(iii), (c)(4)(E)(v)
11	SHAFT	C	1	H=Horizontal; V=Vertical; N=not applicable	Certified to horizontal or vertical engine shaft standard or not applicable	(b)(5)(B)(iii), (c)(4)(E)(v)
12	CERTFUEL	C	3	IND= Indolene PH2= Ca Phase 2 reformulated gasoline DS1= Diesel 13CCR2282 DS2= Diesel 40CFR86.113-90 DS3= Diesel 40CFR86.113-94 CNG=Compressed Natural Gas LPG= Liquefied Petroleum Gas C&L= CNG & LPG OTH= Other	Fuel used during certification	(b)(5)(B)(iv), (c)(4)(E)(v)
13	STD_FEL	C	1	F = Family Emission Limit (FEL) S = Standard	Certified to Family Emission Level (FEL) or standard	(b)(5)(B)(iii), (c)(4)(E)(iii)
14	CARRYOVER	C	1	Y=Yes or N=No	Is engine family a carryover?	(c)(2)(A)(ii)
15	HCNOXSTD	N	2.1	Example: 12.0	Applicable HCNOx standard or FEL	(b)(5)(B)(iii), (c)(4)(E)(iii)
16	COSTD	N	3.1	Example: 300	Applicable CO standard or FEL	(b)(5)(B)(iii), (c)(4)(E)(iii)
17	PMSTD	N	1.2	Example: 1.5	Applicable PM standard or FEL	(b)(5)(B)(iii), (c)(4)(E)(iii)
18	DRBLTY	C	4	Example: Range 50 to 3000 hrs or 5yrs or NA = not applicable	Durability period in hours or years	(b)(5)(B)(iii), (c)(4)(E)(iii)
19	HCNOXDF	N	1.3	Example: 1.394 (multiplicative) Range: 0.000 to 9.999	HC+NOX deterioration factor	(b)(5)(B)(iii), (c)(4)(E)(iii)
20	CODF	N	1.3	Example: 1.082 (multiplicative) Range: 0.000 to 9.999	CO deterioration factor.	(b)(5)(B)(iii), (c)(4)(E)(iii)
21	PMDF	N	1.3	Range: 0.000 to 9.999	Particulate matter deterioration factor.	(b)(5)(B)(iii), (c)(4)(E)(iii)
22	HCCDTDBT	N	8	Range: 0.0 to +/- 9999999	HCNOX projected credits or debits at certification, in grams	2408 (f)
23	PMCDTDBT	N	8	Range: 0.000 to +/- 9999999	PM projected credits or debits at certification, in grams	2408 (f)
24	REVFEL	C	1	Y = Yes or N = No	Indicates if FEL was revised since certification.	(c)(4)(E)(iii)
25	REVFELDATE	D	10	Ex: January 22, 2000 = 2000/01/22 Format: yyyy/mm/dd	Date of the latest FEL revision in date format.	(c)(4)(E)(iii)

\* Reference to Subsections of the California Code of Regulations, Title 13, Section 2407 with the exception of data names HCCDTDBT and PMCDTDBT (credits)

# ENGINE FAMILY DATA PER QUARTER FILE

Sequence	Data Name	Type	Length	Range or Domain	Description	Reference*
1	QTR	C	3	100 = Jan-Mar 2000 200 = Apr-Jun 2000 300 = Jul-Sep 2000 400 = Oct-Dec 2000	First Digit = Quarter Number Second and Third Digit = Last two digits of calendar year	(c)(4)(E)(vii)
2	ENGFAM	C	12	Example: YXYZS.072ABC	12-digit engine family name used at certification	(b)(5)(B)(iv), (c)(4)(E)(v)
3	TESTFUEL	C	3	IND = Indolene PH2 = Phase 2 Gasoline DS1 = Diesel 13CCR 2282 DS2 = Diesel 40CFR86.113-90 DS3 = Diesel 40CFR86.113-94 CNG = Comp. Natural Gas (cert.grade) LPG = Liq. Petroleum Gas (cert.grade) OTH = Other	Type of fuel used for emission testing of this engine family	(b)(5)(B)(iv), (c)(4)(E)(v)
4	RUNIN	N	2.2	Example: 10.25 hours Range: 0 to 12 hours	Breakin time used for this engine family including preconditioning	(b)(5)(B)(iv), (c)(4)(E)(v)
5	STARTUP	D	10	Example: July 20, 2000 = 2000/07/20 format: year/month/day	Start date of production for this engine family. Report every quarter after start up.	(b)(5)(B)(xi)
6	BUILDOUT	D	10	Example: July 20, 2001 = 2001/07/20 format: year/month/day	Engine family build-out date; date of the end of the manufacturer's production. Leave blank until production ends	(b)(5)(B)(ix), (c)(4)(E)(vi)
7	CADISTR	N	6	Example: 52500 Range: 0 to 999999	Number of engines produced for California this quarter	(b)(5)(B)(i), (c)(4)(E)(ii)
8	PRODSIZE	N	7	Example: 700500 Range: 0 to 9999999	Total number of engines produced this quarter for the engine family	(b)(5)(B)(i), (c)(4)(E)(ii)
9	SAMPSIZE	N	3	ex. 5 Range: 0 to 999	Number of engines tested this quarter	(b)(5)(B)(i), (c)(4)(E)(ii)
10	REQSAMP	N	2	Example: 8 Range: 0 to 30	Test sample required for cum sum (N calculation) for engine family for model year as of the end of the quarter	(c)(4)(E)(ii), (c)(2)(B)(i)
11	HCMEAN	N	3	Range: 0 to 999 rounded per ASTM-E-29-93a to number of significant digits in std	HC mean (in g/hp-hr) for the quarter for QA testing or accumulatively for cum sum without DFs applied	(b)(5)(B)(vii)
12	NOXMEAN	N	1.1	ex. 0.9 rounded per ASTM-E-29-93a to number of significant digits in std	NOx mean (in g/hp-hr) for the quarter for QA testing or accumulatively for cum sum without DFs applied	(b)(5)(B)(vii)
13	HCNOXMN	N	2.1	ex. 10.3 rounded per ASTM-E-29-93a to number of significant digits in std Range: 0.0 to 99.9	HCNOx mean (in g/hp-hr) for the quarter for QA testing or accumulatively for cum sum without DFs applied	(b)(5)(B)(vii), (c)(4)(E)(ii)
14	HCNOXSD	N	2.3	Range: 0.000 to 99.999	HCNOx standard deviation (in g/hp-hr) quarterly for QA testing or accumulatively for cum sum without DFs applied	(b)(5)(B)(vii), (c)(4)(E)(ii)
15	COMEAN	N	3.1	Range: 0.0 to 999.9 rounded per ASTM-E-29-93a to number of significant digits in std	CO mean (in g/hp-hour) for the quarter for QA testing or accumulatively for cum sum testing without DFs applied	(b)(5)(B)(vii), (c)(4)(E)(ii)
16	COSDEV	N	3.2	Range: 0.0 to 999.99	CO standard deviation (in g/hp-hr) quarterly for QA testing or accumulatively for cum sum without DFs applied	(b)(5)(B)(vii), (c)(4)(E)(ii)
17	PMMEAN	N	1.2	Range: 0.00 to 9.99 rounded per ASTM-E-29-93a to number of significant digits in std	PM mean (in g/hp-hr) for the quarter for QA testing or accumulatively for cum sum testing without DFs applied	(b)(5)(B)(vii), (c)(4)(E)(ii)
18	PMSDEV	N	1.4	Range: 0.0000 to 9.9999	PM standard deviation (in g/hp-hr) quarterly for QA testing or accumulatively for cum sum without DFs applied	(b)(5)(B)(vii), (c)(4)(E)(ii)
19	HCNOXMN WDF	N	2.1	ex. 10.3 rounded per ASTM-E-29-93a to number of significant digits in std Range: 0.0 to 99.9	HCNOx mean (in g/hp-hr) with DFs applied, as applicable, for the required reporting period	(b)(5)(B)(vii)
20	HCNOXSDW DF	N	2.3	Range: 0.000 to 99.999	HCNOx standard deviation (in g/hp-hr) for the required reporting period with DFs applied, as applicable	(b)(5)(B)(vii)
21	COMNWDF	N	3.1	Range: 0.0 to 999.9 rounded per ASTM-E-29-93a to number of significant digits in std	CO mean (in g/hp-hr) with DFs applied, as applicable, for the required reporting period	(b)(5)(B)(vii)
22	COSDWDF	N	3.2	Range: 0.0 to 999.99	CO standard deviation (in g/hp-hr) with DFs applied, as applicable, for the required reporting period	(b)(5)(B)(vii)
23	PMMNWDF	N	1.2	Range: 0.0000 to 9.99	PM mean (in g/hp-hr) with DFs applied, as applicable, for the required reporting period	(b)(5)(B)(vii)
24	PMSDWDF	N	1.4	Range: 0.0000 to 9.9999	PM standard deviation (in g/hp-hr) with DFs applied, as applicable, for the required reporting period	(b)(5)(B)(vii)
25	CS_HCNOX	N	3.3	Range: 000.000 to 999.999	Cum sum statistic for HCNOx from final audit test for the quarter using engine test results with DFs applied, as applicable	(c)(4)(E)(vii), (c)(3)(A)(i)
26	HCNOX_H	N	3.2	Range: 0.00 to 999.99 H Limit = 5 x (standard deviation)	Action Limit for HCNOx from final engine test for the quarter	(c)(4)(E)(vii), (c)(3)(A)
27	CS_CO	N	3.3	Range: 0.000 to 999.999	Cum sum statistic for CO from final audit test for the quarter using engine test results with DFs applied, as applicable	(c)(4)(E)(vii), (c)(3)(A)(i)
28	CO_H	N	3.2	Range: 0.00 to 999.99 H Limit = 5 x (standard deviation)	Action Limit for CO from final engine test for the quarter	(c)(4)(E)(vii), (c)(3)(A)
29	CS_PM	N	3.3	Range: 0.000 to 999.999	Cum sum statistic for PM from final audit test for the quarter using engine test results with DFs applied, as applicable	(c)(4)(E)(vii), (c)(3)(A)(i)
30	PM_H	N	3.2	Range: 0.00 to 999.99 H Limit = 5 x (standard deviation)	Action Limit for PM from final engine test for the quarter	(c)(4)(E)(vii), (c)(3)(A)
31	COMPLY	C	6	1%FAIL = 1%: minimum of 10 tests averaged has failed CSFAIL = Cumsum: 2 sequential action limit exceedances PASS = Compliant	Indicate if engine family is in compliance or is noncompliant as a result of testing this quarter	(c)(4)(E)(vii)
32	SMPPRD	C	1	Y = Yes, sampling plan has changed N = No, sampling plan has not changed	Indicate if the process to obtain engines on a random basis has changed	(c)(4)(E)(iv)

\* Reference to Subsections of the California Code of Regulations, Title 13, Section 2407